REMARKS

By this amendment, claims 8 and 47 have been amended. Accordingly, Claims 1-4, 8-16, 39-41, 43-45, and 47-54 are currently pending in the application, of which claims 1 and 39 are independent.

Applicant respectfully submits that the above amendments do not add new matter to the application and are fully supported by the specification.

Entry of the Amendment is proper under 37 C.F.R. §1.116 because it does not raise new issues requiring further search and/or consideration by the Examiner because similar subject matter was previously considered by the Examiner and thus further consideration and/or search by the Examiner is not warranted, and it places the application in better form for appeal, should an appeal be necessary. For at least these reasons, entry of the present Amendment is therefore respectfully requested. Accordingly, Applicant requests reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

Rejections Under 35 U.S.C. § 103

Claims 1-4, 8, 14, 16, 39-41, 45-49, 52, and 54 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,389,473 issued to Carmel, *et al.* ("Carmel") in view of U.S. Patent No. 5,956,321 issued to Yao, *et al.* ("Yao"). Applicant respectfully traverses this rejection for at least the following reasons.

To establish an obviousness rejection under 35 U.S.C. § 103(a), four factual inquiries must be examined. The four factual inquiries include (a) determining the scope and contents of the prior art; (b) ascertaining the differences between the prior art and the claims in issue; (c) resolving the level of ordinary skill in the pertinent art; and (d) evaluating evidence of secondary consideration. *Graham v. John Deere*, 383 U.S. I, 17-18 (1966).

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In view of these four factors, the analysis supporting a rejection under 35 U.S.C. 103(a) should be made explicit, and should "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed. *KSR Int'l. Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007). The Federal Circuit requires that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

Finally, even if the prior art may be combined, there must be a reasonable expectation of success, and the reference or references, when combined, must disclose or suggest every claimed feature. *See in re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action fails to establish a *prima facie* case of obviousness of claim 1 at least because even if combined, Carmel and Yao fail to disclose or suggest every claimed feature. Claim 1 recites, among other things:

> establishing connections between a user client and a plurality of nodes;
>
> dividing streaming data into a plurality of blocks for sequential download, said plurality of blocks including a first and second blocks;
>
> dividing the first block of said streaming data into a plurality of sub blocks;
>
> sending a request for at least one of said sub blocks to the plurality of nodes where connection is established to download the sub blocks;
>
> monitoring download state of the established connections, said user client receiving said sub blocks from said respective nodes via said established connections in parallel; and
>
> redistributing said sub blocks of a bad connection to other node for download if one of said established connections is determined to be the bad connection based on said monitored download state;
>
> wherein the step of sending a request, the step of monitoring download state and the step of redistributing said sub blocks are repeated for downloading

<u>sub blocks included in the second block when download of all sub blocks
included in the first block is completed</u> (emphasis added).

The Applicant respectfully states that Carmel fails to teach or suggest at least these
features of claim 1.

Carmel's method does not divide a block of streaming data into a plurality of sub blocks.
The Office Action cites column 7, lines 25-30 as allegedly teaching the concept of "dividing the
first block of said streaming data into a plurality of sub bocks," column 9, lines 28-30 as
allegedly teaching "sending a request for at least one of said sub blocks...to download the sub
blocks, column 10, lines 10-14 as allegedly disclosing "receiving said sub blocks," and Figure 8,
column 12, lines 24-26 as allegedly disclosing "the step of sending a request, the step of
monitoring download state and the step of redistributing said sub blocks are repeated for
downloading sub blocks..." (Office Action, p. 3). However, these portions of Carmel simply
disclose a method where the data stream is divided into a sequence of segments or slices of
data, and each slice of data is preferably assigned a respective slice index. Carmel teaches the
division of a data stream into slices and the inclusion of the slice indices in the data stream to be
used by the clients in maintaining synchronization that allows a broadcast to go on substantially
in real time. Carmel does not disclose that the slices are further divided into sub slices (or
dividing streaming blocks of data into a plurality of sub blocks). Rather, Carmel only discloses a
data stream where each slice contains a segment of video and/or audio data, corresponding to
a respective, successive time interval. Nowhere in Carmel does it lend itself to dividing a first
block of the streaming data into a plurality of sub blocks. Accordingly, Carmel does not teach
the division of a block of streaming data into a plurality of sub blocks, much less wherein the
step of sending a request, the step of monitoring download state, and the step of redistributing
said sub blocks are repeated for downloading sub blocks included in the second block when
download of all sub blocks included in the first block is completed, as recited in claim 1.

Furthermore, Yao does not cure the deficiencies of Carmel. Yao appears to only describe a stream scheduling method for allocating a time-slot for reading data blocks constituting real time stream data, each real time stream data being stored in a data memory device as a plurality of data blocks, storing a reference time slot for defining a transfer timing, and reallocating a time slot for a reading of another real time stream data. Yao fails to disclose dividing a first block of the streaming data into a plurality of sub blocks.

Accordingly, even if Carmel were properly combinable with Yao (which it is not), the combination would still fail to teach or suggest all the features of claim 1.

Finally, the Office Action also fails to establish a *prima facie* case of obviousness at least because it is based upon a single conclusory statement. The Office Action relies on Carmel's method of "dividing streaming data into a plurality of blocks for sequential download," etc. (Office Action, pp.2- 3) of claim 1. However, as the Office Action admits, Carmel does not teach, *inter alia*, "sending a request for at least one of said sub blocks to the plurality of nodes where connection is established to download the sub blocks" (Office Action, p. 3) as required by claim 1. In order to cure this deficiency, the Office Action, refers to Yao's stream schedule system (Office Action, p. 3). The Office Action concludes that:

> it would have been obvious to one of ordinary skill in the art to combine Carmel et al with the general concepts of sending a request for at least one of said sub blocks to the plurality of nodes where connection is established to download the sub blocks with the motivation in that Yao et al also teaches a method for downloading streaming data, as illustrated by Yao et al <u>in order to sufficiently implement a image transmission system for streaming info</u>.

Office Action, ¶ 6 (emphasis added). This conclusory analysis, however, miserably fails to meet the standard set by the U.S. Supreme Court and the Federal Circuit in supporting a *prima facie* case of obviousness. Per this standard, an analysis supporting a rejection under 35 U.S.C. § 103(a) should be made explicit, and should "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the

manner claimed. *KSR Int'l. Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007). Further, "rejections

on obviousness <u>cannot</u> be sustained with mere conclusory statements; instead, there <u>must</u> be

some articulated reasoning with some rational underpinning to support the legal conclusion of

obviousness." *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). Because this rejection is

based on a single conclusory statement and there is no articulated reasoning supporting the

legal conclusion of obviousness, the Office Action fails to establish a *prima facie* case of

obviousness.

Accordingly, even if Carmel were properly combinable with Yao (which it is not), the

combination would still fail to teach or suggest all the features of claim 1.

Claim 39 has similar features as claim 1. Thus, the Office action also fails to establish a

prima facie case of obviousness of claim 39 for at least the reasons noted above with regard to

claim 1.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a)

rejection of claims 1 and 39. Claims 2-4, 8, 14, and16 depend from claim 1 and claims 40, 41,

45-49, 52, and 54 depend from claim 39 and are allowable at least for this reason. Since none

of the other prior art of record, whether taken alone or in any combination, discloses or suggests

all the features of the claimed invention, Applicant respectfully submits that independent claims

1 and 39 and all the claims that depend therefrom, are allowable.

CONCLUSION

Applicant believes that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

/hae-chan park/

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